I026652
-001

Spurling, Norman

From: Miller, Robert
Sent: Wednesday, July 16, 2014 6:33 AM
To: Spurling, Norman
Cc: Panger, Melissa
Subject: FW: Loss report for San Joaquin kit fox in Kern County
Attachments: P2796.pdf

Hi Norman,

Attached is new rodenticide incident from California.

Bob

From: McMillin, Stella@Wildlife [mailto:Stella.McMillin@wildlife.ca.gov]
Sent: Tuesday, July 15, 2014 6:16 PM
To: County Ag Commissioner, Kern; Daniels, Debbie@CDPR; Kratville, David@CDFA; Bireley, Richard@CDPR; Miller, Robert
Subject: Loss report for San Joaquin kit fox in Kern County

Hello, Please find attached a loss report for a San Joaquin kit fox in Kern County. If you have any questions or comments, please contact me.

Thank you.

Stella

Stella McMillin
Senior Environmental Scientist
California Department of Fish and Wildlife
Wildlife Investigations Laboratory
1701 Nimbus Road
Rancho Cordova, CA 95670
Office 916-358-2954
Cell 916-531-9683

DEPARTMENT OF FISH AND WILDLIFE
WILDLIFE BRANCH
WILDLIFE INVESTIGATIONS LABORATORY
PESTICIDE INVESTIGATIONS
1701 NIMBUS ROAD
RANCHO CORDOVA, CA 95670
PHONE (916) 358-2954

Lab Number P-2796
Necropsy Number N14-093
CAHFS Number D1403504

Date of loss: March 11, 2014
Sample: San Joaquin kit fox
Vulpes macrotis mutica
Listing status: Federally endangered, State threatened

To: Ruben Arroyo,
Kern County Agricultural Commissioner

Report Date: July 15, 2014

Remarks
Investigation of a loss of a San Joaquin kit fox in Bakersfield.

Background
A San Joaquin kit fox was found showing signs of mange in an apartment complex in Bakersfield and was brought to the California Living Museum on March 10, 2014. It was treated with Revolution (active ingredient: salamectin) to control ectoparasites and given fluids. The fox died the following day and was frozen. The carcass was submitted to DFW Wildlife Investigations Laboratory (WIL) to evaluate the causes of mortality.

RESULTS OF EXAMINATION

The necropsy was performed at WIL on March 14, 2014. The fox was found to be an adult male in poor nutritional condition with severe mange on the body and appendages (Figures). Tissue was submitted to the California Animal Health and Food Safety Laboratory for toxicological and histological analysis. Sarcoptic mange was confirmed. The liver contained 0.12 ppm bromadiolone and a trace of brodifacoum, indicating non-target exposure to these second-generation anticoagulant rodenticides. In this case, the death of the kit fox was attributed to sarcoptic mange. Exposure to anticoagulant rodenticides may increase susceptibility to mange (Riley et al. 2007). Second-generation anticoagulant rodenticides persist in body tissue for months and it is not possible to determine the dates, frequencies, or levels of exposure from post-mortem liver concentrations. Also unknown is the extent that anticoagulant exposure contributed to the poor health of the fox.

Figures. San Joaquin kit fox from Kern County with sarcoptic mange and emaciation.

Reference:
Riley, S.P., Bromley, C., Poppenga, R.H., Uzal, F.A., Whited, L., and Sauvajot, R.M., 2007. Anticoagulant exposure and notoedric mange in bobcats and mountain lions in urban Southern California. *Journal of Wildlife Management* **71**, 1874-1884.

WILDLIFE INVESTIGATIONS LABORATORY

Stella McMillin

Stella McMillin, Senior Environmental Scientist
Wildlife Investigations Laboratory

Approved

Stan G. Torres

Steve Torres, Program Manager,
Wildlife Investigations Laboratory

Cc: **Rich Bireley,**
DPR Registration

Dr. Debbie Daniels,
DPR Registration

David Kratville,
CDFA

Robert Miller,
USEPA